

In the Claims

1. (Currently Amended) A method for machine-milking of ~~an~~ a dairy animal such as a cow,
~~wherein~~ without substantially increasing milking time, the method comprising the steps of:
defining a standard pressure changing phase duration in which no changes to pressure
changing speed rates are made;
generating a pulsed vacuum is generated in a pulse chamber of a teat cup (3) by altering the
vacuum in the pulse chamber during ~~the~~ pressure changing phases, ~~characterized~~
~~in that the;~~
controlling a pressure curve is controlled at least for the duration of one pressure changing
phase (a, e) ~~in with~~ at least two pressure changing speed rates; and
limiting the total duration for the pressure changing phase, with at least two pressure
changing speed rates, to not substantially exceed the defined standard pressure
changing phase duration.
2. (Currently Amended) The method according to claim 1, wherein the step of controlling the
pressure curve ~~is controlled~~ includes the step of:
adjusting the pulsed vacuum during the pressure changing phase (a, e) ~~by means of an~~
~~adjusting unit.~~
3. (Currently Amended) The method according to claim 1, wherein the step of controlling the
pressure curve ~~is controlled at least~~ includes the step of:
controlling the pulsed vacuum during the ventilation phase (e).
4. (Currently Amended) The method according to claim 1, wherein the step of controlling the
pressure curve ~~is controlled at least~~ includes the step of:
controlling the pulsed vacuum during the evacuation phase (a).

5. (Currently Amended) The method according to claim 1, ~~wherein~~ and further comprising the step of:

changing the pressure changing speed rates of pressure changes within a time stage is
substantially continuously.

6. (Canceled)

7. (Currently Amended) The method according to claim 1, wherein the step of controlling the pressure curve is controlled in comprises the steps of:

controlling a first stage and ~~in~~ a subsequent stage of ~~the a~~ ventilation phase ~~(e)~~ such that the
pressure ~~curve~~ changing speed rate in the first stage is ~~[[()]]~~substantially~~[[()]]~~ flatter
than in the subsequent stage.

8. (Currently Amended) The method according to claim 1, wherein the step of controlling pressure curve is controlled in includes the steps of:

controlling a first stage and ~~in~~ a subsequent stage of the evacuation phase ~~(a)~~ such that the
pressure ~~curve~~ changing speed rate in the first stage is ~~[[()]]~~substantially~~[[()]]~~
steeper than in the subsequent stage.

9. (Currently Amended) The method according to claim 1, ~~wherein the~~ and further comprising the step of:

shifting from ~~the first to the second stage~~ one pressure changing speed rate to another
pressure changing speed rate occurs while the pressure in the pulse chamber
~~is in the region of~~ when the liner infolding pressure is in contact with an animal's
teat.

10. (Currently Amended) The method according to claim 1, ~~wherein~~ and further comprising the step of:

~~controlling the time pressure curve of at least one for the duration of the pressure changing phase (a, c) is adjusted in dependence on a valve characteristic of a valve (9) of~~
the comprises the step of: operating a pulsator valve (1) used in generating the pulsed vacuum.

11. (Currently Amended) The method according to claim 10, ~~wherein the~~ and further comprising the step of:

~~varying a free flow vacuum resistance is varied toward~~ between the teat cup (3) and the pulsator valve.

12. (Currently Amended) The method according to claim 10, and further comprising the step of: wherein the valve

changing a valve chamber cross-section of a valve (9) of the the pulsator valve (1) is changed to vary vacuum in the chamber.

13. (Currently Amended) The method according to claim 10, ~~wherein the~~ and further comprising the step of:

changing a valve chamber cross-section of a valve (9) of the pulsator valve (1) is changed in multiple stages.

14. (Currently Amended) The method according to claim 10, ~~wherein the~~ and further comprising:

continuously changing a valve chamber cross-section of a valve (9) of the pulsator valve (1) is changed continuously.

15. (Currently Amended) The method according to claim 12, ~~wherein~~ and further comprising
the step of:

maintaining the a pulsator valve is-maintained body of the pulsator valve in a floating
position in at least one stage of a the pressure changing phase.

16. (Currently Amended) The method according to claim 12, ~~wherein~~ and further comprising
the step of:

maintaining the a pulsator valve body of the pulsator valve is-maintained in a variable
floating position in at least one stage of a the pressure changing phase.

17. (Currently Amended) The method according to claim 1, ~~wherein~~ and further comprising
the steps of:

measuring the pressure is-measured in the pulse chamber; and
controlling which forms an input signal of a component with the component supplying an
output signal through which the a pulsator actuator based on the pressure
measurement and/or the flow resistor is actuated.

18. (Currently Amended) A pulsator for a ~~milking means~~ milker unit for milking an animal ~~such as a cow~~ for alternatively connecting a vacuum source and a pressure source (5) to a pulse chamber of at least one teat cup, (3), ~~wherein a means is provided by means of which at least the~~ the pulsator comprising:

a controller for adjusting a pressure-time curve can be controlled at least during one
a pressure changing phase in with at least two pressure changing speed rates
wherein the time of the pressure changing phase does not exceed a time of a
pressure changing phase of a predetermined pressure changing phase using no
controlled changes in pressure changing speed rate.

19. (Canceled)

20. (Currently Amended) The pulsator according to claim 18, ~~wherein the device comprises at least one~~ and further comprising:

a timing element by means of for adjusting which the duration of one a stage of a pressure
changing phase (a, e) can be adjusted.

21. (Currently Amended) The pulsator according to claim 18, wherein the controller controls
the pressure curve can be controlled at least during the ventilation phase (e).

22. (Currently Amended) The pulsator according to claim 18, wherein the controller controls
the pressure curve can be controlled at least during the evacuation phase (a).

23. (Currently Amended) The pulsator according to claim 18, ~~wherein~~ and further comprising:
a pulsator valve is provided having a variable opening valve chamber cross-section, the
pulsator valve being in communication with the controller.

24. (Currently Amended) The pulsator according to claim 18 ~~23, characterized in that~~ wherein
the opening valve chamber cross-section is discontinuously variable.

25. (Currently Amended) The pulsator according to claim 23, ~~characterized in that~~ wherein the opening valve chamber cross-section is variable in ~~multiple~~ a plurality of stages.

26. (Currently Amended) The pulsator according to claim 19~~8~~, ~~characterized in that the device comprises at least one~~ and further comprising:

a valve (9, 20, 21) and the time curve of the pressure-time curve of the pressure changing phase (a, e) can be adjusted is adjustable in dependence on a valve characteristic of ~~said the~~ the valve (9, 20, 21).

27. (Currently Amended) The pulsator according to claim 18, ~~characterized in that the device comprises~~ and further comprising:

a pilot valve in communication with the controller; (20) and

a main valve in communication with the pilot valve (21).

28. (Currently Amended) The pulsator according to claim 18, ~~characterized in that the device comprises at least one~~ and further comprising:

a direct valve in communication with the controller.

29. (Canceled)

30. (Canceled)

31. (Currently Amended) The pulsator according to claim ~~30~~ 23, ~~characterized in that said two~~ wherein the valve openings have different chamber defines a plurality of cross-sections.

32. (Currently Amended) The pulsator according to claim 18, ~~characterized in that the device comprises an element that is~~ and further comprising:

a nozzle or a diaphragm in communication with the controller.

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33. (Currently Amended) The pulsator according to claim 18, ~~characterized in that~~ and further comprising:

a pulsator valve in communication with the controller, the pulsator valve defining

a pulsator valve chamber; and

a valve closing element ~~is provided that interacts with the~~ at least one disposed in the

pulsator valve opening chamber for movement therein.

34. (Canceled)